

(istoveten EN 60064:1995/A2:2003)

Tungsten filament lamps for domestic and similar general lighting purposes -
Performance requirements - Amendment A2 (IEC 60064:1993/A2:2002)

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EUROPEAN STANDARD

EN 60064/A2

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2003

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English version

**Tungsten filament lamps for domestic
and similar general lighting purposes -
Performance requirements**
(IEC 60064:1993/A2:2002, modified)

Lampes à filament de tungstène
pour usage domestique
et éclairage général similaire -
Prescriptions de performances
(CEI 60064:1993/A2:2002, modifié)

Glühlampen für den Hausgebrauch und
ähnliche allgemeine Beleuchtungszwecke -
Anforderungen an die Arbeitsweise
(IEC 60064:1993/A2:2002, modifiziert)

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This amendment A2 modifies the European Standard EN 60064:1995; it was approved by CENELEC on 2002-12-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 34A/1003/FDIS, future amendment 2 to IEC 60064:1993, prepared by SC 34A, Lamps, of IEC TC 34, Lamps and related equipment, was submitted to the IEC-CENELEC parallel vote. Together with the common modifications in EN 60064:1995, it was approved by CENELEC as amendment A2 to EN 60064:1995 on 2002-12-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2003-09-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2005-12-01

Endorsement notice

The text of amendment 2:2002 to the International Standard IEC 60064:1993 was approved by CENELEC with agreed common modifications as given below.

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COMMON MODIFICATIONS
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Delete all references to E26/24 and E26/25 caps.

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

60064

Sixième édition
Sixth edition

1993-11

Modifiée selon l'amendement 1 (2000) et l'amendement 2 (2002)
Amended in accordance with Amendment 1 (2000) and Amendment 2 (2002)

**Lampes à filament de tungstène pour usage
domestique et éclairage général similaire –
Prescriptions de performances**

**iTeh STANDARD PREVIEW
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**Tungsten filament lamps for domestic and
similar general lighting purposes –
Performance requirements**

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTRODUCTION

This edition of International Standard IEC 64 introduces major technical and formatting changes. However, it maintains the basic requirements and compliance conditions.

The new technical coverage involves specifications for lamps with E26 caps and some lamp life ratings other than 1 000 h. General lighting service lamps with white finish are introduced, because they are becoming large factors in the Japanese and North American markets.

An editorial objective of this work has been to improve the groupings of certain types of information. An example is that all the requirements have been put into one section of the text, and moved toward the front due to their high importance. Similarly, all test procedures have been drawn together and put in an annex. Particular lamp specifications are now shown on specific lamp data sheets.

There are no changes in the guiding principles of whole production appraisal, nor in the separation of performance and safety requirements. Utilization of past experience, manufacturers' test data and reduced market samples for whole production appraisal were introduced in the fourth edition. The fifth edition introduced coverage of performance requirements only.

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TUNGSTEN FILAMENT LAMPS FOR DOMESTIC AND SIMILAR GENERAL LIGHTING PURPOSES

Performance requirements

Section 1: General

1.1 Scope

This International Standard applies to tungsten filament incandescent lamps for general lighting service (GLS) which comply with the safety requirements in IEC 432-1 and having:

- rated wattage of 25 W to 200 W, inclusive;
- rated voltage 100 V to 250 V, including marked voltage range not exceeding $\pm 2,5$ % of the mean voltage¹⁾;
- bulbs of the A or PS shapes;
- bulbs with clear, frosted or equivalently coated finishes, or white finishes;
- caps B22d, E26 or E27.

Specific lamp types are covered in section 8.

This standard states the performance requirements for lamps, including test methods and means of confirming compliance with the requirements. Whole production appraisal methods regarding a lamp manufacturer's test record on finished products are defined. This method can be applied for certification purposes. Details of a batch test procedure, which can be used to make an assessment of specific batches, are included, but it is not suitable for certification purposes.

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For some of the requirements given in this standard reference is made to "the relevant data sheet". For some lamps these data sheets are contained in this standard. For other lamps, falling under the scope of this standard, the relevant data are supplied by the lamp manufacturer or responsible vendor.

NOTES

- 1 A lamp used in China having a rated wattage 15 W and rated voltage 220 V is included.
- 2 Separate references are made to E26/24 caps used in North America and E26/25 caps used in Japan. The two are not compatible.

1.2 Normative references

The following normative documents contain provisions, which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

1) In countries in the process of changing from 220 V to 230 V nominal supply voltage, a range of $\pm 3,5$ % will apply temporarily.

2.1.3 The sequence of the data sheets in section 8 is by wattage within the following subdivisions.

Category	Data sheet numbers
Lamps with E26 caps, rated life varying with rated wattage	1000 – 1999
Lamps with E26 caps, rated life 1 000 h	2000 – 2999
Reserve	3000 – 3999
Lamps with B22 caps, rated life 1 000 h	4000 – 4999
Lamps with E27 caps, rated life 1 000 h	5000 – 5999
Reserve	6000 – 6999

2.1.4 Numbering system for lamp data sheets

A lamp data sheet number is made up of four parts as follows:

- the first number represents the number of this publication (IEC 64);
- the second part is the letter grouping "IEC";
- the third part is the basic data sheet number from the series in sub-clause 2.1.3;
- the fourth part is a number indicating the edition of the sheet.

NOTE – When amendments are made to data sheets, the affected pages are issued with an updated edition number. For example, if data sheet 64-IEC-1050-1 were amended, the new issue would be numbered 64-IEC-1050-2.

Section 3: General, dimensional, electrical, photometric, and life requirements

3.1 General

3.1.1 The lamps on which compliance with this standard is claimed shall comply with the requirements of IEC 432-1.

3.1.2 Lamps shall be so designed that their performance is reliable in normal and accepted use. In general, this can be achieved by satisfying the requirements of this section (section 3).

3.1.3 Lamps shall be tested under the procedures of annex A, Test procedure.

3.2 Marking

Information identifying the finish of white lamps shall be either marked on the lamp or on the packaging.

3.3 Lamp dimensions

3.3.1 Lamps shall comply with the dimensional requirements specified on the appropriate lamp data sheet.

3.3.2 Lamps with E27 caps shall comply with the gauge for testing contact-making, sheet 7006-50 of IEC 60061-3

3.3.3 Lamps with E26 caps shall comply with the gauge for testing contact-making, sheet 7006-29 of IEC 60061-3.

3.4 Characteristics and tolerances of initial readings

3.4.1 Wattage

The initial wattage of individual lamps shall not exceed 104 % of the rated wattage specified on the relevant lamp data sheet plus 0,5 W.

3.4.2 Luminous flux initial

3.4.2.1 Rated luminous flux of the lamps shall not be less than the values shown on the relevant lamp data sheet.

3.4.2.2 The initial luminous flux readings of individual frosted, frosted equivalently coated or clear lamps shall not be less than 93 % of the rated luminous flux.

3.4.2.3 The initial luminous flux readings of individual white-coated lamps shall not be less than 90 % of the rated luminous flux.

3.5 Lumen maintenance

The lumen maintenance of individual lamps at 75 % of rated life shall be not less than the minimum value specified on the relevant lamp data sheet.

NOTES

1 For the compliance conditions of subclauses 4.1.2.6, 4.1.3.3 and 4.2.3, lamps that do not satisfy this requirement are treated as life failures.

2 In some countries, particularly North America, manufacturers' records may yield data at 70 % of rated life rather than the defined 75 % of rated life. This is due to long-established domestic and regulatory practices. Such data will have to be linearly extrapolated to the 75 % point.

3.6 Life test requirements

3.6.1 The truncated average life of a normal life test or the equivalent truncated average life of an accelerated life test, calculated by the method of subclause B.1.1 of annex B, shall be equal to or greater than the limits in subclause B.1.2, as related to rated life and the LTQ.

3.6.2 Individual lamps shall have a life of not less than 70 % of rated life.